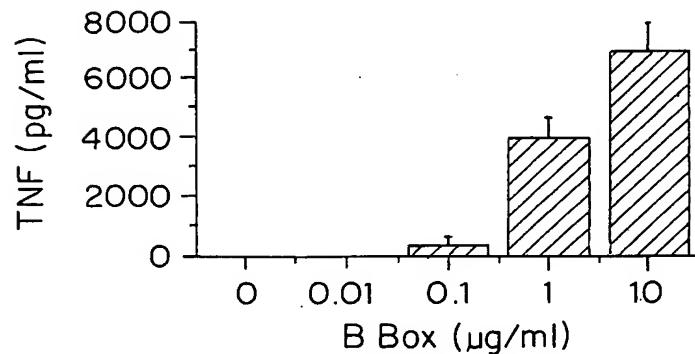
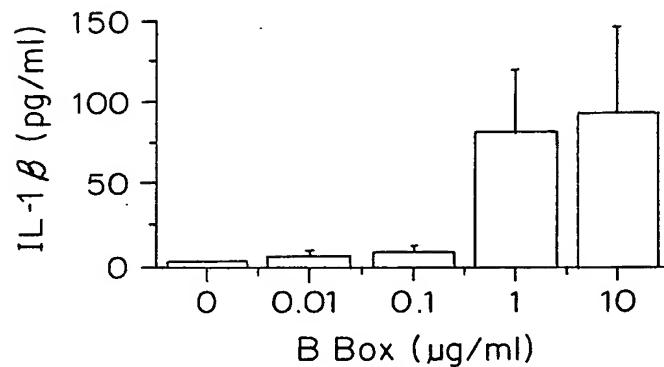


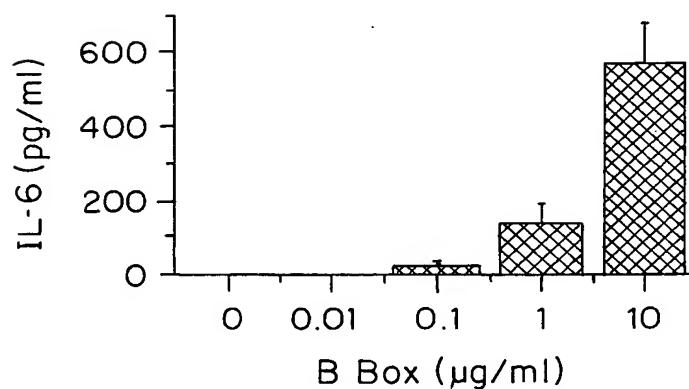
**FIG. I**



**FIG. 2A**



**FIG. 2B**



**FIG. 2C**

Docket/App No.: 3258.1009-001  
Title: Use of HMGB Fragments as ...  
Inventors: Theresa L. O'Keefe

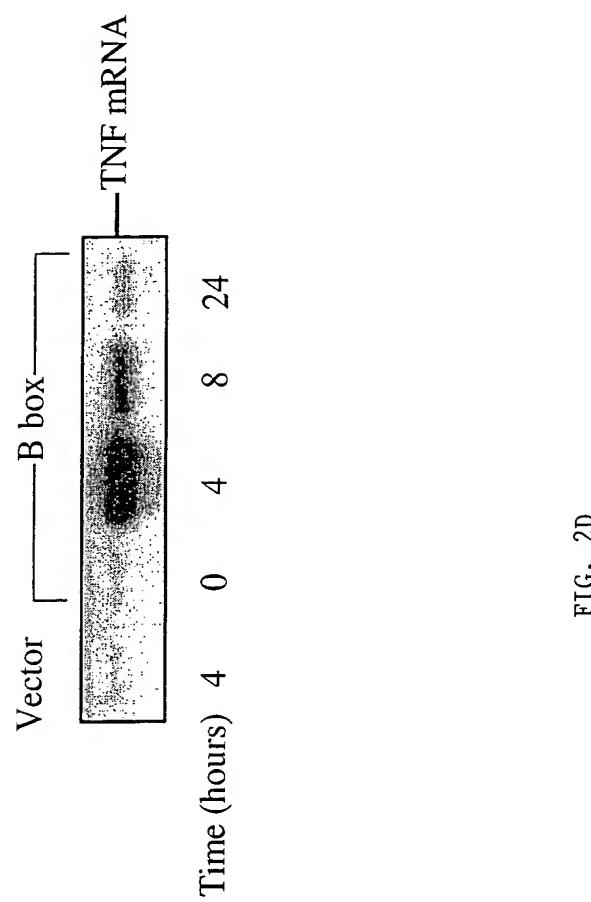
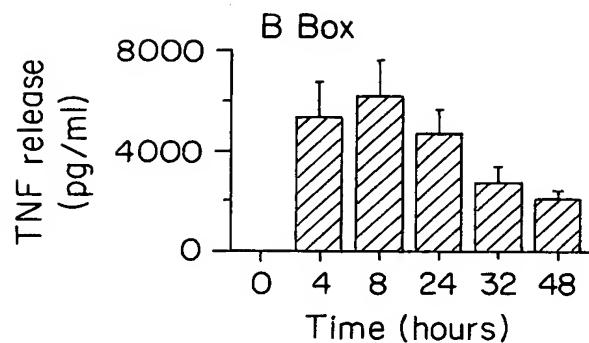
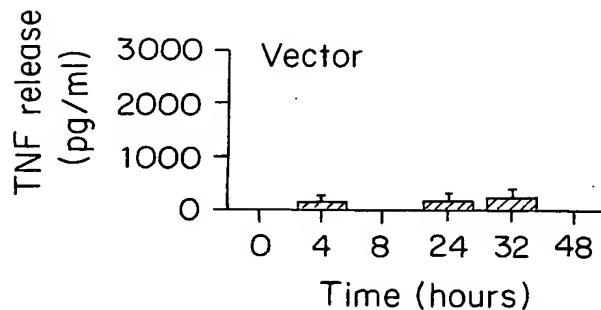


FIG. 2D



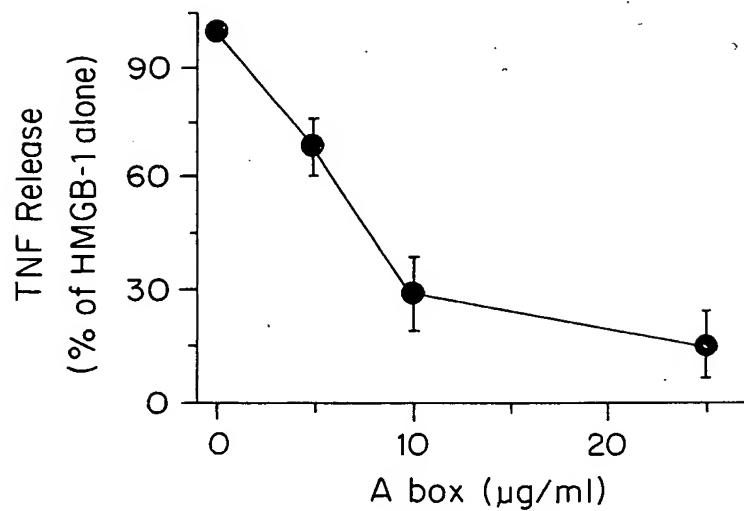
**FIG. 2E**



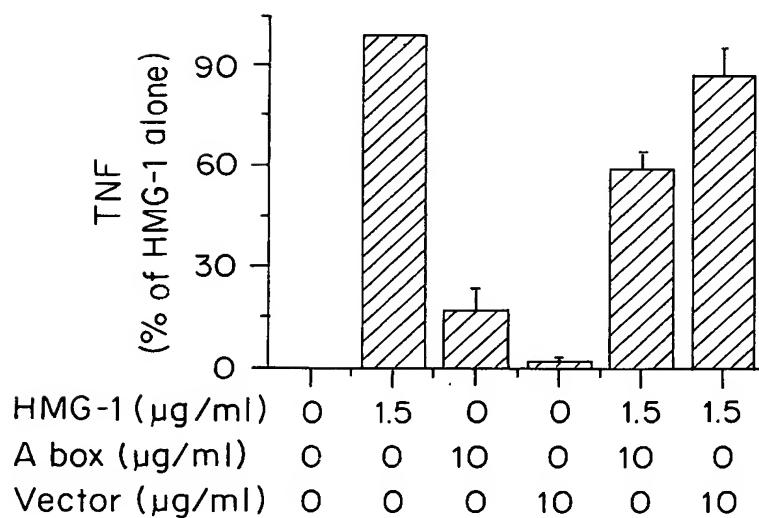
**FIG. 2F**

B box mutants	TNF release (pg/ml)
B box: 74 amino acids	5675±575
1-20	2100±756
16-35	100±10
30-49	120±75
45-64	100±36
60-74	100±20

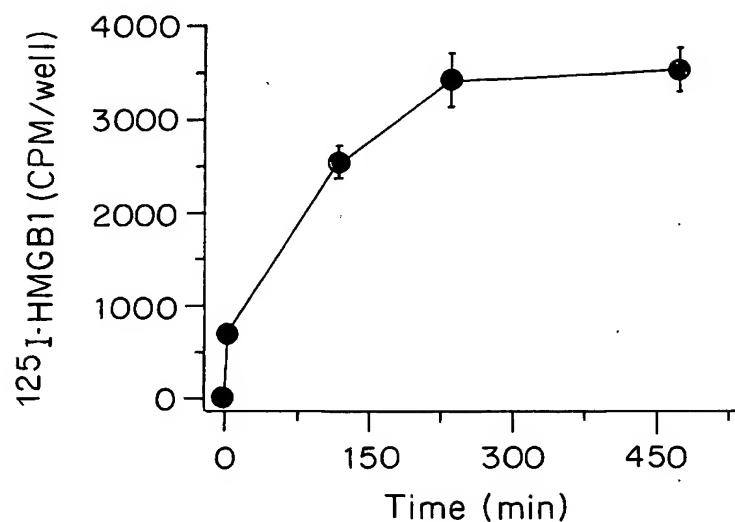
**FIG. 3**



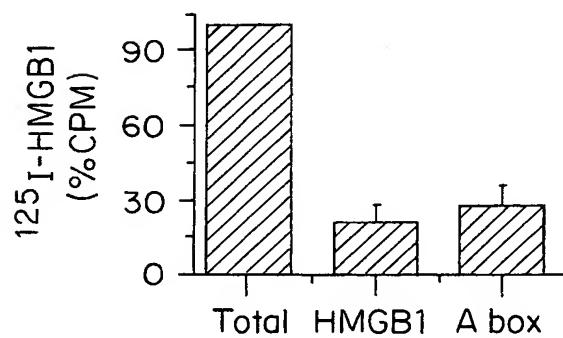
**FIG. 4A**



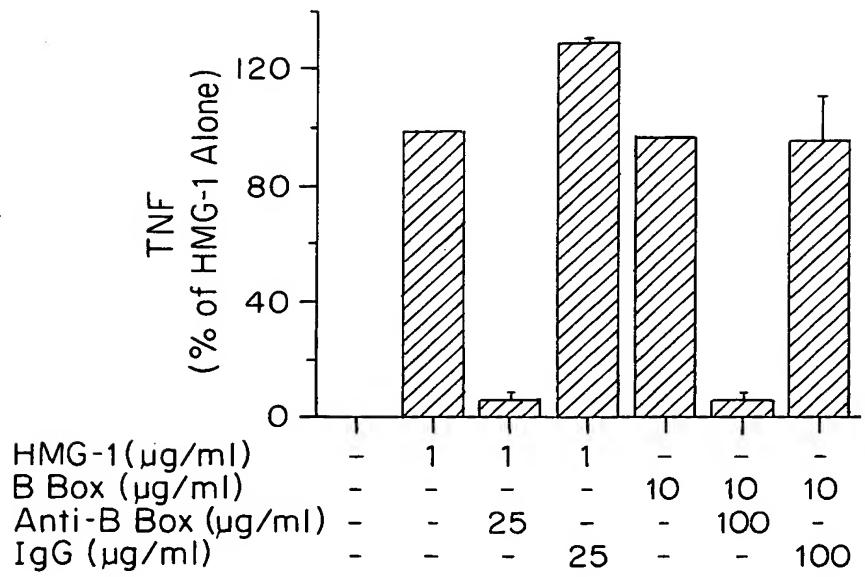
**FIG. 4B**



**FIG. 5A**



**FIG. 5B**



**FIG. 6**

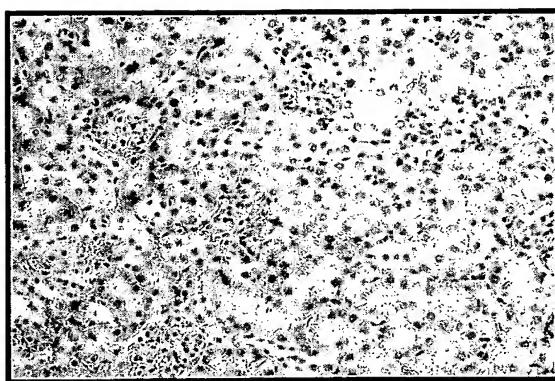


FIG. 7A

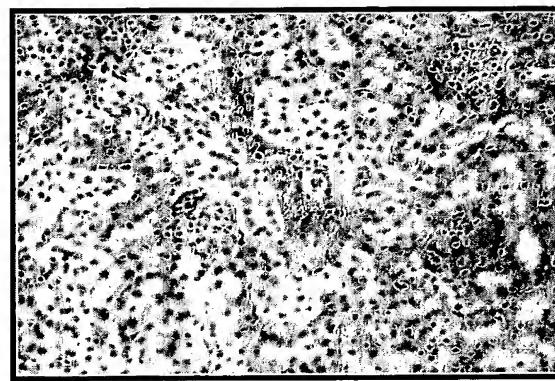


FIG. 7B

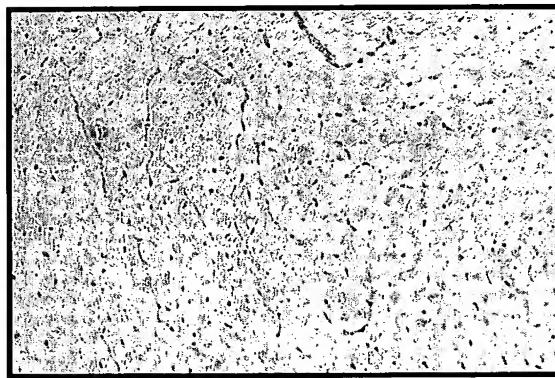


FIG. 7C

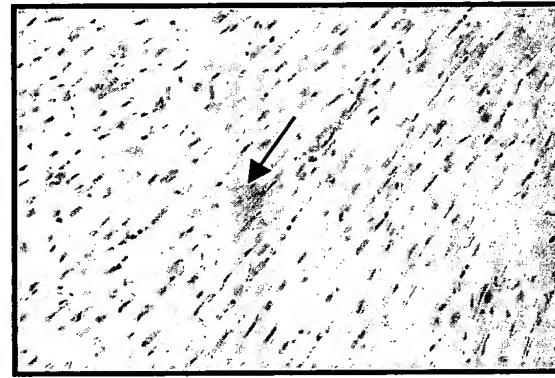


FIG. 7D



FIG. 7E

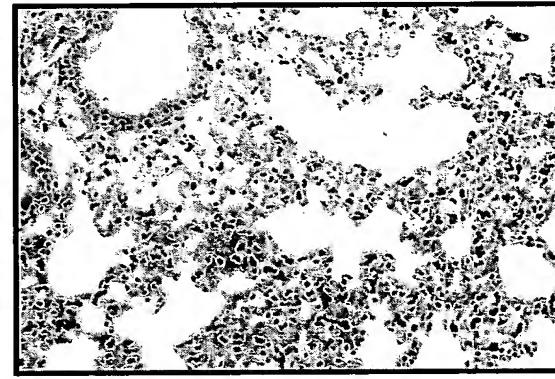
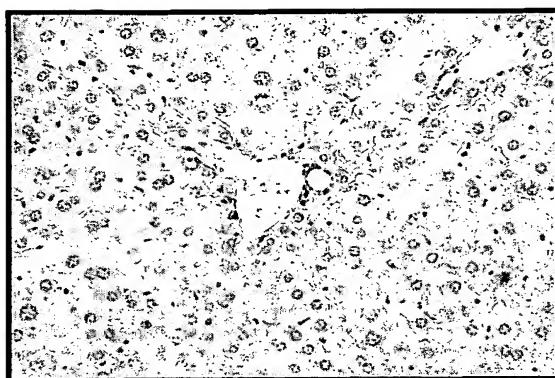
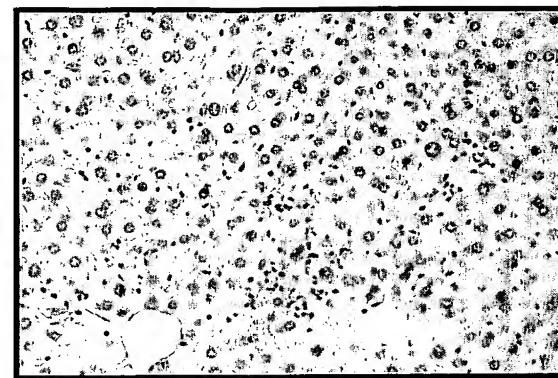


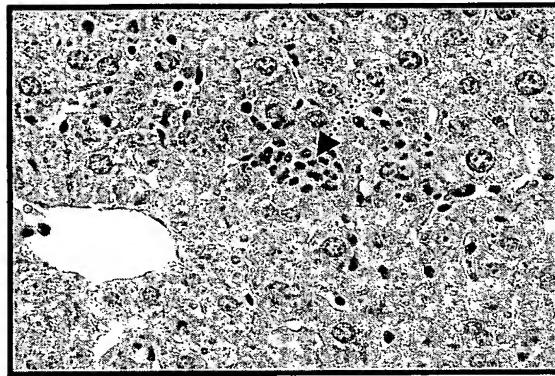
FIG. 7F



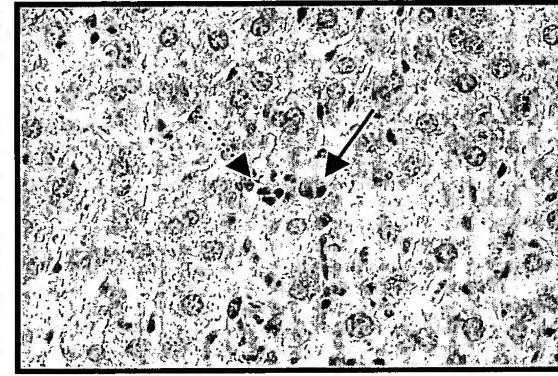
**FIG. 7G**



**FIG. 7H**



**FIG. 7I**



**FIG. 7J**

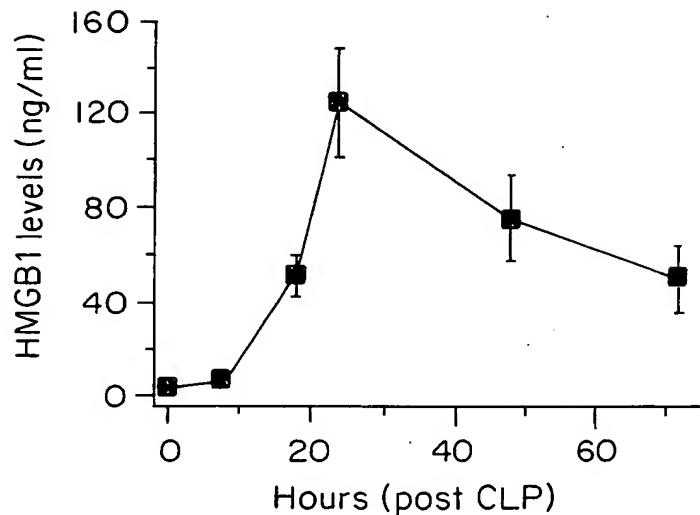


FIG. 8

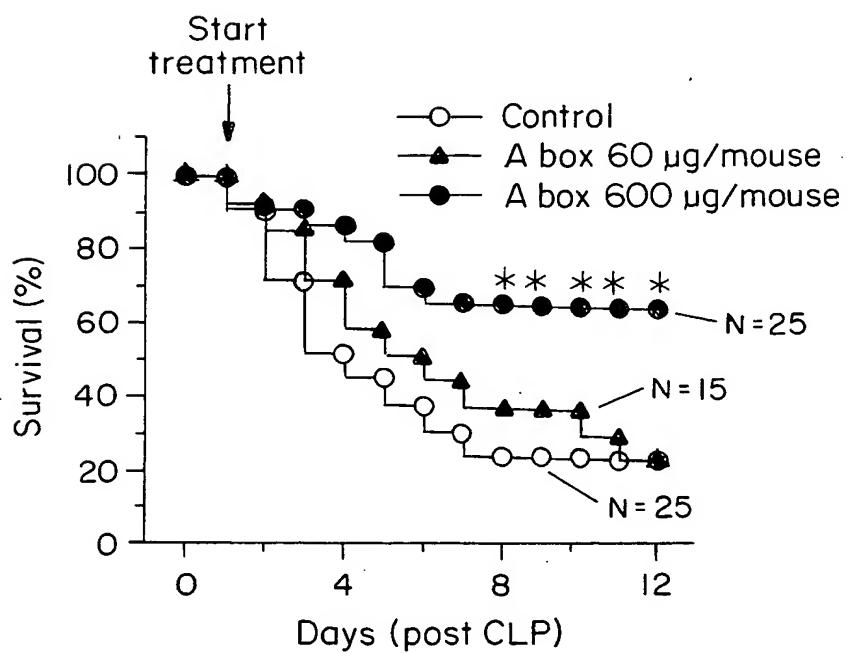


FIG. 9

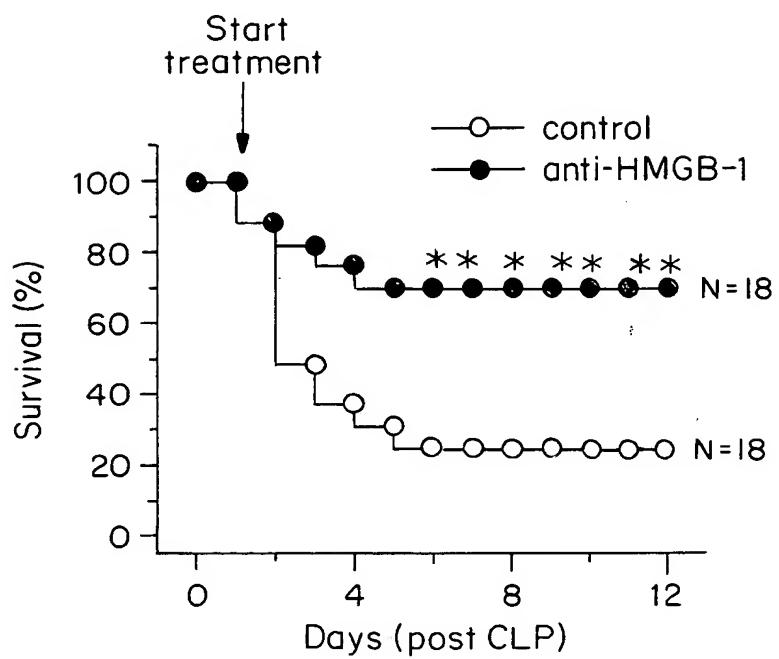


FIG. IOA

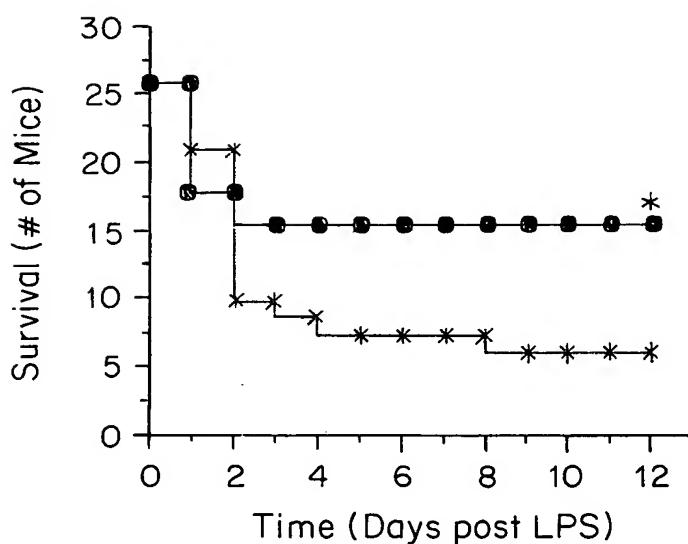


FIG. IOB

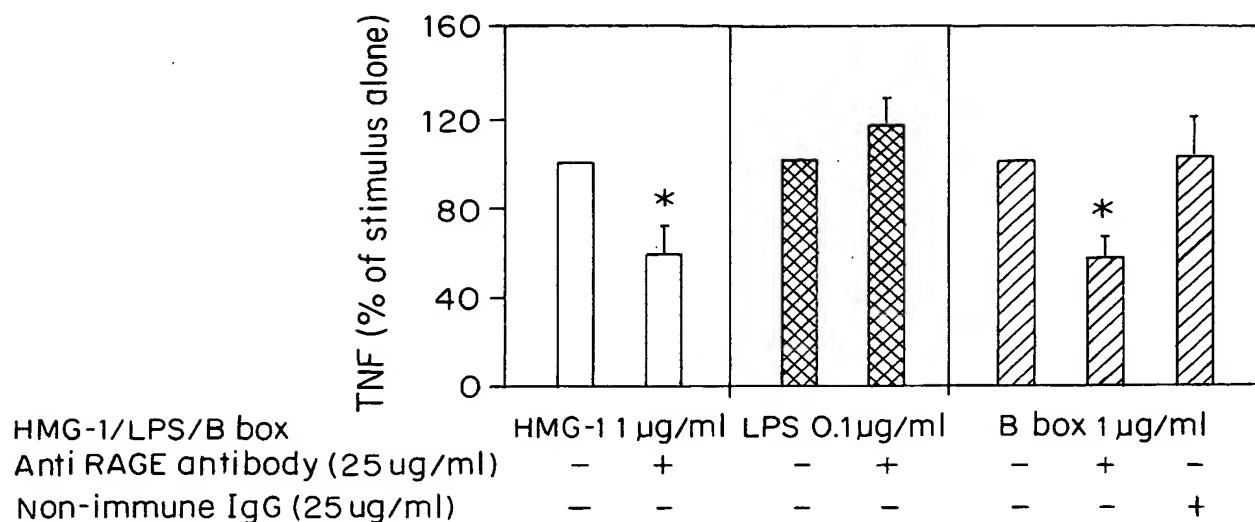


FIG. II A

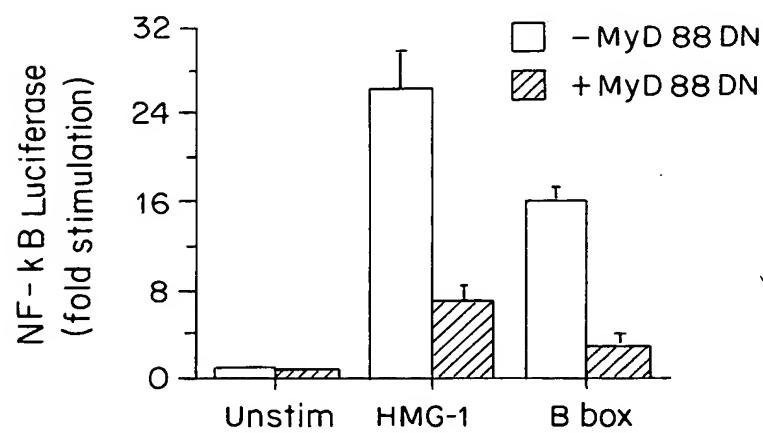


FIG. II B

FIG. 12A

SEQ ID NO:1 - Human HMG1 amino acid sequence

1 mgkgdpkkpr gkmssyaffv qtcreehkkk hpdasvnfse fskkcserwk tmsakekgkf  
61 edmakadkar yeremktyip pkgetkkfk dnapkrpps afflfcseyr pkikgehpgl  
121 sigdvakkgl emwnntaadd kqpyekkaak lkekyekdia ayrakgpda akkgvvkaek  
181 skkkkeeee edeededeee edeededeee dddde

FIG. 12B

SEQ ID NO:2 - Mouse and Rat HMG1 amino acid sequence

1 mgkgdpkkpr gkmssyaffv qtcreehkkk hpdasvnfse fskkcserwk tmsakekgkf  
61 edmakadkar yeremktyip pkgetkkfk dnapkrpps afflfcseyr pkikgehpgl  
121 sigdvakkgl emwnntaadd kqpyekkaak lkekyekdia ayrakgpda akkgvvkaek  
181 skkkkeeedd edeededeeee eeeeededeee dddde

FIG. 12C

SEQ ID NO:3 - HUMAN HMG2 amino acid sequence

1 mgkgdpnkpr gkmssyaffv qtcreehkkk hpdsfvnfae fskkcserwk tmsakekskf  
61 edmaksdkar ydremknyvp pkgdkgkkk dnapkrpps afflfcsehr pkiksehpgl  
121 sigdtakkgl emwseqsakd kqpyeqkaak lkekyekdia ayrakgksea gkkgpgrptg  
181 skkknepede eeeeeeeded eeeeededee

FIG. 12D

SEQ ID NO:4 - Human, mouse and rat HMG1 A box protein sequence

1 pdasvnfsef skkcserwkt msakekgkfe dmakadkary eremktyipp kget

FIG. 12E

SEQ ID NO:5 - Human, mouse and rat HMG1 B box protein sequence

1 napkrppsaf flfcseyrpk ikgehpglsi gdvakklgem wnntaaddkq pyekkaalk  
61 ekyekdiaa

FIG. 12F

SEQ ID NO:6 - forward PCR primer for human HMG1

gatggcaaaggagatcctaag.

FIG. 12G

SEQ ID NO:7 - reverse PCR primer for human HMG1

gcggccgttattcatcatcatcatcttc

FIG. 12H

SEQ ID NO:8 - forward PCR primer for -C mutant of human HMG1

gatggcaaaggagatcctaag

FIG. 12I

SEQ ID NO:9 - reverse PCR primer for -C mutant of human HMG1  
gccccggctcacttgcttttcagccttgac

FIG. 12J

SEQ ID NO:10 - forward PCR primer for A+B boxes mutant of human HMG1  
gaggcataagaagaagcaccca

FIG. 12K

SEQ ID NO:11 - reverse PCR primer for A+B boxes mutant of human HMG1  
gccccggc tcacttgcttttcagccttgac

FIG. 12L

SEQ ID NO:12 - forward PCR primer for B box mutant of human HMG1  
aagttcaaggatcccaatgcaaag

FIG. 12M

SEQ ID NO:13 - reverse PCR primer for B box mutant of human HMG1  
gccccggctcaaatatgcagctatatcctttc

FIG. 12N

SEQ ID NO:14 - forward PCR primer for N'+A box mutant of human HMG1  
gatgggcaaaggagatcctaag

FIG. 12O

SEQ ID NO:15 - reverse PCR primer for N'+A box mutant of human HMG1  
tcactttttgtctcccttggg

Docket/App No.: 3258.1009-001  
Title: Use of HMGB Fragments as ...  
Inventors: Theresa L. O'Keefe

1 mgkgdppkpr gkmssyaffv qtcreehkkk hpdasvnse fskkcserwk tmsakekgkf *rat #P07155*  
1 mgkgdppkpr gkmssyaffv qtcreehkkk hpdasvnse fskkcserwk tmsakekgkf *mouse #AAA20508*  
1 mgkgdppkpt gkmssyaffv qtcreehkkk hpdasvnse fskkcserwk tmsakekgkf *human #AAA64970*

A box

61 edmakadkar yeremkyip pkgetkkfk dpnapkrpps afflfcseyr pkikgehpgl *rat*  
61 edmakadkar yeremkyip pkgetkkfk dpnapkrpps afflfcseyr pkikgehpgl *mouse*  
61 edmakadkar yeremkyip pkgetkkfk dpnapkrrips afflfcseyr pkikgehpgl human

B box

121 sigdvakklg emwnntaadd kqpyekkaak lkekyekdia ayrakgpda akkgvvkaek *rat*  
121 sigdvakklg emwnntaadd kqpyekkaak lkekyekdia ayrakgpda akkgvvkaek *mouse*  
121 sigdvakklg emwnntaadd kqpyekkaak lkekyekdia ayrakgpda akkgvvkaek *human*

181 skkkkeeedd eedeedeeee eeee deee dddde *rat*  
181 skkkkeeedd eedeedeeee eeee deee dddde *mouse*  
181 skkkkeeed eedeedeeee edeedeedeee dddde *human*

FIG. 13

**FIG. 14A**

**NG\_000897 DNA (bases 150-797)**

ATGGGCAAAG GAGATCCTAA GAAGCCGACA GGCAAAATGT CATCATATGC  
ATTTTTGTC CAAACTTGTG GGGAGGAGCA TAAGAAGAAG CACCCAGATG  
CTTCAGTCAA CTTCTCAGAG TTTTCTAAGA AGTGTCTAGA GAGGTGGAAG  
ACCATGTCTG CTAAAGAGAA AGGAAAATTG GAAGATATGG CAAAGGCCGA  
CAAGGCCGT TATGAAAGAG AAATGAAAAC CTATATCCCT CCCAAAGGGG  
AGACAAAAAA GAAGTTCAAG GATCCAATG CACCCAAGAG GCCTCCTTCG  
GCCTTCTTCC TCTTCTGCTC TGAGTATCGC CCAAAATCA AAGGAGAAC  
TCCTGGCCTG TCCATTGGTG ATGTTGCGAA GAAACTGGGA GAGATGTGGA  
ATAACACTGC TGCAGATGAC AAGCAGCCTT ATGAAAAGAA GGCTGCGAAG  
CTGAAGGAAA AATACGAAAA GGATATAGCT GCATATCGAG CTAAAGGAAA  
GCCTGATGCA GCACAAAAGG GAGTTGTCAA GGCTGAAAAA AGCAAGAAAA  
AGAAGGAAGA GGAGGAAGAT GAGGAAGATG AAGAGGATGA GGAGGAGGAG  
GAAGATGAAG AAGATGAAGA AGATGAAGAA GAAGATGATG ATGATGAA

**FIG. 14B**

**NG\_000897 Protein**

MGKGDPKKPT GKMSYYAFFV QTCREEHKKK HPDASVNFSE FSKKCSERWK  
TMSAKEKGKF EDMAKADKAR YEREMKTYIP PKGETKKFK DPNAPKRLPS  
AFFLFCSEYR PKIKGEHPGL SIGDVAKKLG EMWNNTAADD KQPYEKKA  
LKEKYEKDIA AYRAKGKPDA AKKGVVKAEK SKKKKEEEED EDEEDEEEE  
EDEEDEEDEE EDDDDE

**FIG. 14C**

**AF076674 DNA (bases 1-633)**

ATGGGCAAAG GAGATCCTAA GAAGCCGAGA GGCAAAATGT CATCATATGC  
ATTTTTGTC CAAACTTGTG GGGAGGAGCA TAAGAAGAAG CACTCAGATG  
CTTCAGTCAA CTTCTCAGAG TTTTCTAACAA AGTGTCTAGA GAGGTGGAAG  
ACCATGTCTG CTAAAGAGAA AGGAAAATTG GAGGTATGG CAAAGGCCGA  
CAAGACCCAT TATGAAAGAC AAATGAAAAC CTATATCCCT CCCAAAGGGG  
AGACAAAAAA GAAGTTCAAG GATCCAATG CACCCAAGAG GCCTCCTTCG  
GCCTTCTTCC TGTTCTGCTC TGAGTATCAC CCAAAATCA AAGGAGAAC  
TCCTGGCCTG TCCATTGGTG ATGTTGCGAA GAAACTGGGA GAGATGTGGA  
ATAACACTGC TGCAGATGAC AAGCAGCCTG GTGAAAAGAA GGCTGCGAAG  
CTGAAGGAAA AATACGAAAA GGATATTGCT GCATATCAAG CTAAAGGAAA  
GCCTGAGGCA GCACAAAAGG GAGTTGTCAA AGCTGAAAAA AGCAAGAAAA  
AGAAGGAAGA GGAGGAAGAT GAGGAAGATG AAGAGGATGA GGAGGAGGAA  
GATGAAGAAG ATGAAGAAGA TGATGATGAT GAA

**FIG. 14D**

**AF076674 Protein**

MGKGDPKKPR GKMSYYAFFV QTCREEHKKK HSDASVNFSE FSNKCSERWK  
TMSAKEKGKF EDMAKADKTH YERQMKTYIP PKGETKKFK DPNAPKRPPS  
AFFLFCSEYH PKIKGEHPGL SIGDVAKKLG EMWNNTAADD KQPGEKKA  
LKEKYEKDIA AYQAKGKPEA AKKGVVKAEK SKKKKEEEED EDEEDEEEE  
DEEDEEDDDD E

**FIG. 14E**

**AF076676 DNA (bases 1-564)**

ATGGGCAAAG GAGACCCCTAA GAAGCCGAGA GGCAAAATGT CATCATATGC  
ATTTTTTGTG CAAACTTGTGTC GGGAGGAGTG TAAGAAGAAG CACCCAGATG  
CTTCAGTCAA CTTCTCAGAG TTTTCTAAGA AGTGTCTCAGA GAGGTGGAAG  
GCCATGTCTG CTAAAGATAA AGGAAAATTG GAAGATATGG CAAAGGTGGA  
CAAAGACCGT TATGAAAGAG AAATGAAAAC CTATATCCCT CCTAAAGGGG  
AGACAAAAAA GAAGTTCGAG GATTCCAATG CACCCAAGAG GCCTCCTTCG  
GCCTTTTGC TGTTCTGCTC TGAGTATTGC CCAAAATCA AAGGAGAGCA  
TCCTGGCCTG CCTATTAGCG ATGTTGCAA GAAACTGGTA GAGATGTGGA  
ATAACACTTT TGCAGATGAC AAGCAGCTT GTGAAAAGAA GGCTGCAAAG  
CTGAAGGAAA AATACAAAAA GGATACAGCT ACATATCGAG CTAAAGGAAA  
GCCTGATGCA GCAAAAAGG GAGTTGTCAA GGCTGAAAAA AGCAAGAAAA  
AGAAGGAAGA GGAG

**FIG. 14F**

**AF076676 Protein**

MGKGDPKKPR GKMSSYAFFV QTCREECKKK HPDASVNFS E FSKKCSETWK  
AMSAKDKGKF EDMAKVDKDR YEREMKTYIP PKGETKKFE DSNAPKRPPS  
AFLLFCSEYC PKIKGEHPGL PISDVAKKL V EMWNNTFADD KQLCEKKA AK  
LKEKYKKDTA TYRAKGKPDA AKKGVVKAEK SKKKKEEE

**FIG. 14G**

**AC010149 DNA (bases 75503-76117)**

ATGGACAAAG CAGATCCTAA GAAGCTGAGA GGTGAAATGT TATCATATGC  
ATTTTTTGTG CAAACTTGTGTC AGGAGGAGCA TAAGAAGAAG AACCCAGATG  
CTTCAGTCAA GTTCTCAGAG TTTTAAAGA AGTGTCTCAGA GACATGGAAG  
ACCATTTTG CTAAAGAGAA AGGAAAATTG GAAGATATGG CAAAGGCCGA  
CAAGGCCAT TATGAAAGAG AAATGAAAAC CTATATCCCT CCTAAAGGGG  
AGAAAAAAAGA GAAGTTCAAG GATCCAATG CACCCAAGAG GCCTCCTTG  
GCCTTTTCC TGTTCTGCTC TGAGTATCGC CCAAAATCA AAGGAGAAC  
TCCTGGCCTG TCCATTGATG ATGTTGTGAA GAAACTGGCA GGGATGTGGA  
ATAACACCGC TGCAGCTGAC AAGCAGTTT ATGAAAAGAA GGCTGCAAAG  
CTGAAGGAAA AATACAAAAA GGATATTGCT GCATATCGAG CTAAAGGAAA  
GCCTAATTCA GCAAAAAGA GAGTTGTCAA GGCTGAAAAA AGCAAGAAAA  
AGAAGGAAGA GGAAGAAGAT GAAGAGGATG AACAAAGAGGA GGAAAATGAA  
GAAGATGATG ATAAA

**FIG. 14H**

**AC010149 Protein**

MDKADPKKLR GEMLSYAFFV QTCQEEHKKK NPDASVKFSE FLKKCSETWK  
TIFAKEKGKF EDMAKADKAH YEREMKTYIP PKGEKKKKFK DPNAPKRPP  
AFLLFCSEYR PKIKGEHPGL SIDDVVKKLA GMWNNTAAAD KQFYEKKA  
LKEKYKKDIA AYRAKGKPNS AKKRVVKAEK SKKKKEEEED EEDEQEEENE  
EDDDK

**FIG. 14I**

**AF165168 DNA (bases 729-968)**

ATGGGCAAAG GAGATCCTAA GAAGCCGAGA GGCAAAATGT CATCATGTGC  
ATTTTTGTG CAAACTTGTT GGGGAGGAGCA TAAGAACAG TACCCAGATG  
CTTCATCAA CTTCTCAGAG TTTTCTCAGA AGTGCCAGA GACGTGGAAG  
ACCACGATTG CTAAAGAGAA AGGAAAATTT GAAGATATGC CAAAGGCAGA  
CAAGGCCAT TATGAAAGAG AAATGAAAAC CTATATAACCC

**FIG. 14J**

**AF165168 Protein**

MGKGDPKKPR GKMSSCAFFV QTCWEEHKKQ YPDASINFSE FSQKCPETWK  
TTIAKEKGKF EDMPKADKAH YEREMKTYIP

**FIG. 14K**

**XM\_063129 DNA (bases 319-558)**

AAACAGAGAG GCAAAATGCC ATCGTATGTA TTTTGTGTGC AAACTTGTCC  
GGAGGAGCGT AAGAAGAAC ACCCAGATGC TTCAGTCAAC TTCTCAGAGT  
TTTCTAAGAA GTGCTTAGTG AGGGGAAGA CCATGTCTGC TAAAGAGAAA  
GGACAATTG AAGCTATGGC AAGGGCAGAC AAGGCCCGTT ACGAAAGAGA  
AATGAAAACA TATATCCCTC CTAAAGGGGA GACAAAAAAA

**FIG. 14L**

**XM\_063129 Protein**

KQRGKMPSYV FCVQTCPEER KKKHPDASVN FSEFSKKCLV RGKTMSAKEK  
GQFEAMARAD KARYEREMKT YIPPKGETKK

**FIG. 14M**

**XM\_066789 DNA (bases 1-258)**

ATGGGAAAAA GAGACCCTAA GCAGCCAAGA GGCAAAATGT CATCATAATGC  
ATTTTTGTG CAAACTGCTC AGGAGGAGCA CAAGAACAGA CAACTAGATG  
CTTCAGTCAG TTTCTCAGAG TTTTCTAAGA ACTGCTCAGA GAGGTGGAAG  
ACCATGTCTG TTAAAGAGAA AGGAAAATTT GAAGACATGG CAAAGGCAGA  
CAAGGCCTGT TATGAAAGAG AAATGAAAAT ATATCCCTAC TTAAAGGGGA  
GACAAAAAA

**FIG. 14N**

**XM\_066789 Protein**

MGKRDPKQPR GKMSSYAFFV QTAQEEHKKK QLDASVSFSE FSKNCSERWK  
TMSVKEKGKF EDMAKADKAC YEREMKIYPY LKGRQK

Docket/App No.: 3258.1009-001  
Title: Use of HMGB Fragments as ...  
Inventors: Theresa L. O'Keefe

**FIG. 14O**

**AF165167 DNA (bases 456-666)**

ATGGGCAAAG GAGACCCTAA GAAGCCAAGA GAGAAAATGC CATCATATGC  
ATTTTTGTA CAAACTTGTG GGGAGGCACA TAAGAACAAA CATCCAGATG  
CTTCAGTCAA CTCCTCAGAG TTTTCTAAGA AGTGCTCAGA GAGGTGGAAG  
ACCATGCCTA CTAAACAGAA AGGAAAATTC GAAGATATGG CAAAGGCAGA  
CAGGGCCCAT A

**FIG. 14P**

**AF165167 Protein**

MGKGDPKKPR EKMPSYAFFV QTCREAHKNK HPDASVNSSE FSKKCERWK  
TMPTKQKGKF EDMAKADRAH